

**BEFORE THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF CALIFORNIA**



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Order Instituting Investigation to Consider Policies to Achieve the Commission's Conservation Objectives for Class A Water Utilities.

Investigation 07-01-022
(Filed January 11, 2007)

In the Matter of the Application of Golden State Water Company (U 133 E) for Authority to Implement Changes in Ratesetting Mechanisms and Reallocation of Rates.

Application 06-09-006
(Filed September 6, 2006)

Application of California Water Service Company (U 60 W), a California Corporation, requesting an order from the California Public Utilities Commission Authorizing Applicant to Establish a Water Revenue Balancing Account, a Conservation Memorandum Account, and Implement Increasing Block Rates

Application 06-10-026
(Filed October 23, 2006)

Application of Park Water Company (U 314 W) for Authority to Implement a Water Revenue Adjustment Mechanism, Increasing Block Rate Design and a Conservation Memorandum Account.

Application 06-11-009
(Filed November 20, 2006)

Application of Suburban Water Systems (U 339 W) for Authorization to Implement a Low Income Assistance Program, an Increasing Block Rate Design, and a Water Revenue Adjustment Mechanism.

Application 06-11-010
(Filed November 22, 2006)

Application of San Jose Water Company (U 168 W) for an Order Approving its Proposal to Implement the Objectives of the Water Action Plan

Application 07-03-019
(Filed March 19, 2007)

**THE CONSUMER FEDERATION OF CALIFORNIA'S
COMMENTS ON SETTLEMENT AGREEMENT
BETWEEN DRA, TURN AND CAL WATER SERVICE COMPANY**

California Water Service Company ("CalWater") provides water to 24 districts, located throughout California (and in different Hydrologic Regions):

Northern California (Sacramento River): Chico, Willows, Oroville, Marysville, Dixon, Lucerne

North Bay (North Coast): Redwood Valley, Duncans Mills, Guerneville, Dillon Beach, Noel Heights, Santa Rosa (portion)

North Central (San Joaquin River): Stockton, Armstrong

Central California (Central Coast): Salinas, King City

South Central (Tulare Lake): Bakersfield, Kern River Valley, Selma, Visalia

Southern California (South Coast): Westlake, Hermosa-Redondo, Palos Verdes, Dominguez, Hawthorne, East Los Angeles, Antelope Valley

South Bay (San Francisco Bay): S. San Francisco, Mid-Peninsula, Bear Gulch, Los Altos, Livermore

Each of these districts has a different climate and each has unique opportunities to conserve water.

The rates proposed in the Settlement between Cal Water and DRA do not take advantage of this unique situation. The rates have been designed in accordance with a formula devised for all Cal Water districts (and for all the districts of Park Water and Suburban, as well). There is little or no risk involved in implementing these rates, as they are very similar to rates which would be in effect if there had been no change in rate design. This fact is evident when one examines the graphs contained in the Settlement, which compare current total bills to proposed total bills; the lines are very nearly the same.

Admittedly, Cal Water did agree to reduce the service charge in seven districts, but only by 3 to 5 percent in three districts (Stockton-3%; Los Altos-4%; Palos Verdes-5%;), 10% in Salinas, and 17-23% in an additional three districts (East L.A.-17%; Bakersfield-20%; Bear Gulch-23%). The changes implemented in the Cal Am–Monterey case, where a WRAM was authorized, were much more dramatic. The service charge reductions were 50% (100% for low-income customers), and a three block rate design, with the third block at 200% of the standard block rate, was also placed in effect. And the WRAM was to be terminated three years after it was placed in effect.

A Water Rate Adjustment Mechanism (WRAM) is unnecessary for Cal Water in this case. Only if Cal Water were to propose rates more carefully designed to address current usage patterns in each district, and to send clear price signals to customers using more water than necessary for basic indoor and outdoor needs, could the rates be deemed ‘experimental’ so as to justify implementation of a WRAM. Under no circumstances should Cal Water be permitted to implement the WRAM it proposes which removes all incentive to more efficiently manage procurement and production costs.

These Comments address only rate-related conservation issues presented by CalWater’s settlement of rate design issues, as directed in the ALJ’s March Scoping Ruling. Installation of conservation measures, leak detection and other conservation matters are to be addressed in Phase II.

I. NEED FOR CONSERVATION

As an introductory matter, it is useful to recognize the general context in which these rate design issues have been raised. According to the California State Water Plan, updated in 2005, California's population is growing by about 600,000 people per year, and in the next 25 years is projected to grow from 36.5 million to 48 million.¹ Based on current trends, the Department of Water Resources estimates an additional, annual 3.5 million acre-feet of demand for water, which must be offset by a combination of management strategies to reduce demand, improve system efficiency and redistribute and augment supplies.² "Even if conservation were to reduce statewide water use at the same rate as population growth, urban water demand would increase as new housing and economic development will occur largely in high water using regions."³

In a 'must-read' report, "Waste Not; Want Not: The Potential for Urban Water Conservation in California," the Pacific Institute discusses how residential customers use water.

A. Indoor Residential Use

The residential sector is the largest urban water use sector, and it offers the largest volume of potential savings compared with other urban sectors. ... we estimate that total indoor residential water use in California totaled approximately 2.3 million acre-feet (MAF) in 2000 (see Table 2-1). More water is used to flush toilets than for any other indoor use.

¹ Water Plan Update 2005 at Vol. 1, p. 3.4.

² Water Plan Update 2005 at Vol. 1, p. 4.18

³ *Id.* at p. 4.367

Table 2-1

Estimated Current Indoor Residential Water Use in California (Year 2000)

End Use	Current Use (AF/yr.)	Fraction of Total Indoor Use (%)
Toilets	734,000	32
Showers	496,000	22
Washing machines	330,000	14
Dishwashers	28,000	1
Leaks	285,000	12
Faucets	423,000	19
Total Indoor Residential Use	2,296,000	100

(Report at 37-38). In their report, the Pacific Institute estimates that “indoor residential use could be reduced by approximately another 40 percent by replacing remaining inefficient toilets, washing machines, showerheads, and dishwashers, and by reducing the level of leaks, even without improvements in technology.”⁴ “This would have the effect of reducing current indoor residential use, on average, from around 60 gallons per person per day (excluding some uses not evaluated here) to around 37 gallons per person per day.”⁵

B. Outdoor Residential Use.

A substantial amount of water is used to water lawns and gardens in California. The Pacific Institute estimates that “just under 1.5 million acre-feet were used for these purposes in 2000,” but notes that the Department of Water Resources estimated outdoor residential water use in 1990 at between 1.34 million acre-feet and 2.23 million acre-feet, and that another expert “estimates

⁴ “Waste Not, Want Not: The Potential for Urban Conservation in California” P. Gleick, et al., Pacific Institute 2003) at 37.
http://www.pacinst.org/reports/urban_usage/waste_not_want_not_full_report.pdf

that watering gardens and lawns accounts for half of all residential water use statewide, and as much as 70 percent of residential use in some parts of the state.”⁶ It is particularly important to address demands on the water system posed by outdoor water use: “Outdoor water use rises to a maximum during the summer when California water supplies are most constrained; as a result, residential landscape use plays a large role in driving the need for increases in system capacity and reliability.”⁷ The Institute “estimate[s] that cost-effective reductions of at least 32.5% (a savings of 470,000 AF/yr) could be made relatively quickly with improved management practices and available irrigation technology. ... Substantially larger improvements can be achieved through long-term changes in plant selection and garden design.”⁸

II. WRAM

Through the testimony of its witness, Cal Water advises the Commission that “Cal Water’s request for increasing quantity rates is contingent upon approval of Cal Water’s decoupling request.” (Testimony of David Morse, at 7:10). This is because, Mr. Morse says, “the Commission’s current ratemaking procedures, which link sales to earnings, are a major disincentive to promote successful water conservation programs.” (*Id.* at 8:14). But Cal Water does not propose a Water Rate Adjustment Mechanism (WRAM) like that previously approved by the Commission under similar circumstances.

⁵ *Id.* at 39.
⁶ *Id.* at 63-64
⁷ *Id.* at 64.
⁸ *Id.* at 7-8.

A. History of the WRAM

In California American's Monterey case, the Commission approved a WRAM which "track[ed] all variances in revenue due to the experimental rate design." 1996 Cal. PUC LEXIS 1066, 69 CPUC2d 398. at p. 56 (see *also*, Morse Ex. D, page 2). The experimental rate design cut the service charge in half, requiring collection of half the service charge revenue through the commodity charge and eliminated the service charge in bills sent to low income customers. *Id.* at 58-60. A change in rate design was also proposed. The first eight (8) units of water were to be billed at a rate of 75% of the standard block rate, and all quantities of water billed to residential customers (including [low-income] customers) in excess of 16 units per month were to be billed at a rate of 200% of the standard block rate. *Id.* at 60-61. The WRAM account was set up to account for any revenues foregone by reduction/elimination of the service charge and from reduction of the price of the first eight units of water; excess revenues collected as a result of the increased rates for water consumed in excess of 16 units per month was used to offset those losses.

The Commission approved the WRAM because of the experimental nature of the rates and the need to assure some revenue stability for CalAm:

The proposed experiment is conceptually very attractive. It potentially harmonizes the goals of (1) encouraging water conservation through improved price signals, (2) giving customers increased control over the level of their water bills, and (3) providing rate relief to customers on low fixed incomes, while (4) assuring Cal-Am of reasonable revenue stability.

Id. at 21. In conjunction with the experimental rate design proposal, the Company also agreed to certain data collection requirements, performance of a

study of the effectiveness of the rates and to investigate similar rate designs for commercial customers and service to multi-residential structures.

The Company agrees to file a study with the next general rate application presenting data on the effectiveness, or lack thereof, of this rate design on reducing customer consumption. The Company agrees to file a study with the next general rate application on the number of living units within each multi-residential structure to determine if an alternate rate schedule can be implemented for multi-residential customers. The Company will also complete a study to determine if there is an alternative rate structure that can be implemented for commercial customers. The Company will provide a study to the Commission regarding the effectiveness of the alternative rate design by the next Monterey General Rate Case or December 31, 1999, should the Company not file a General Rate Case for Monterey in 1999. The WRAM and the experimental rate design program will terminate as of December 31, 1999. The Company will also inform the customers through bill inserts about the interim rate design aimed at assisting low income customers and low-water users, and curtailing high consumption.

Id. at 57,

B. Cal Water's WRAM

Cal Water's WRAM is not modeled on the Monterey WRAM. Mr. Morse admits that when he says, "The Cal Am WRAM is not considered as an example of a full decoupling mechanism since its purpose is to decouple risk of over or under collecting revenues with an inverted rate design." (Morse Testimony at 14:1). The WRAM "would reduce Cal Water's sales risk, which is driven mostly by weather, economics, and demographics," Mr. Morse argues, and eliminate Cal Water's "incentive to 'game' the sales forecast. *Id.* at 17.

Cal Water asks the Commission to allow it a "WRAM" like the electric utilities have. It would calculate what it should earn each month,

based on a 5-year average sales figure for the month, multiplied by the rate set in the GRC to achieve the allowed revenue requirement. It will then deduct from that amount its actual earnings, and the difference will be recorded in the WRAM, accumulated with interest, and amortized. (Morse Testimony at 30-31). Cal Water fails to mention that the electric utilities' Rate Adjustment Mechanisms were authorized by the Commission under unique circumstances arising during the energy crisis:

The rationale for approving non-test year revenue requirement adjustments is greater in this GRC than we have encountered in recent proceedings where we denied such mechanisms. SCE's financial condition was devastated by the events of 2000 and 2001, and it only narrowly avoided bankruptcy. While SCE's earnings have improved since the worst of the energy crisis in 2000 and early 2001, SCE is still working to regain full creditworthiness, an objective that no party opposes and one that this Commission has repeatedly endorsed. This weighs strongly in favor of adopting a revenue requirement adjustment mechanism for this GRC cycle for both 2004 and 2005.

Application of SCE, 2004 Cal. PUC Lexis 325 (July 16, 2004). CalWater has demonstrated no similar financial circumstances justifying a WRAM. According to Cal Water's 2006 Annual Report: "The total return on your investment in California Water Service Group increased nearly 9% in 2006, as annual dividends increased for the 39th consecutive year to \$1.15 per share (at a yield of approximately 3%)."⁹

The WRAM proposed by Cal Water would allow the Company to go back to its customers after a sale, to collect an additional fee if the price it originally placed on its product is too low. That's like the grocery story

⁹ http://media.corporate-ir.net/media_files/irol/10/108851/2006AR/pages/10-results.html

marking up its prices retroactively and charging you the next time you shop for its failure to charge high enough prices the first time. Most businesses can't do that. If the prices they put on their products are too low, they try to reduce their costs to cover the difference. If that's not possible, they accept a lesser profit and try to do better the next time.

In effect, Cal Water's WRAM removes any incentive for Cal Water to tighten its belt when circumstances develop calling for increased efficiency. The WRAM also removes all business risk and necessarily affects the rate of return on equity to which Cal Water would otherwise be entitled. "The return to the equity owner should be commensurate with returns on investments in other enterprises having corresponding risks. *Federal Power Com. v. Hope Natural Gas Co.*, 320 U.S. 591, 603 (U.S. 1944). In order to determine what return on equity was necessary to adequately compensate Cal Water's investors, one would have to find an enterprise with corresponding risks, *i.e.*, an enterprise which does not have to absorb costs associated with mis-pricing its service. It would be very difficult to find such an enterprise. The proxy usually recognized for the rate earned on an enterprise which is free of risk is the rate paid on a three-month U.S. Treasury bill.

The Commission should reject Cal Water's WRAM proposal, as it did previously, and for the same reasons.

"[W]ater utilities are allowed an opportunity to earn a return reasonably sufficient to assure confidence in the financial soundness of the utility and should be adequate, under efficient and economical management, to maintain and support its credit and

enable it to raise the money necessary for the proper discharge of its public duties.” And further, “Class A water companies in California are provided special rate relief for certain expenses that are beyond their control.” Also, “With these regulatory tools available to them, the 14 Class A water utilities have shown stable earning and healthy rates of return.”

(Morse Testimony at 16:25, quoting D.94-06-033).

III. CONSERVATION RATES

Cal Water should be required to put conservation rates into effect, even if the WRAM it proposes is rejected. Water customers should not be required to pay for wasteful water consumption by the customers who put excessive demands on the system. Properly designed conservation rates can be used to create a powerful incentive to install measures which reduce wasteful water use.

The Water Action Plan adopted by the Commission sets an objective: “Encourage increasing conservation and efficiency rate designs ... where feasible to promote greater conservation.” In Phase 1 of this proceeding, the parties were directed to address the question of “whether the increase in rates between tiers will effectively promote conservation.” (Scoping Ruling at 4). CFC does not believe the block rates proposed by the Settling Parties will promote conservation.

A. Trial Program

The Settling Parties state that the rates they have designed “constitute a Trial Program,” which will remain in effect until CalWater’s next general rate case. (Settlement Section III). The two to three block rate structure proposed by the Settling Parties does not need to be put into effect on a trial basis; it has already been tried and found effective. According to the Commission’s Water

Action Plan, “[a]pproximately half the California water ratepayers in 2003 had increasing block rates. (WAP at 8.) The following chart shows a few California cities and municipal water districts which have implemented inclining block rates:

**CALIFORNIA CITIES/MUNICIPAL DISTRICTS
INVERTED BLOCK RATE STRUCTURES**

IRVINE		OTAY		GARDEN GROVE		
Blocks	(per ccf)	Blocks	(per ccf)	Blocks		
Low	\$0.750	0-5	\$1.01	0-36	\$1.33	
Base Rate	\$0.910	6-10	\$1.67	37-250	\$1.37	
				250-		
Inefficient	\$1.820	11-35	\$1.81	500	\$1.41	
Excessive	\$3.640	36+	\$2.65	Excess	\$1.45	
Wasteful	\$7.280					
SAN DIEGO		BURBANK		RIVERSIDE		
Blocks	(per ccf)	Blocks	(per ccf)	Blocks	Summer (per ccf)	
0-7	\$1.609	All	\$0.37	0-15	Winter	
8-14	\$2.023			16-35	\$0.76	\$0.76
14+	\$2.223			36-60	\$1.44	\$1.30
				60+	\$1.84	\$1.48
					\$2.40	\$1.63
FULLERTON		POMONA		SAN CLEMENTE		
Blocks	(per gal.)	Blocks	(per ccf)	Winter	Summer	(per ccf)
0-7500	\$1.927	1-15	\$0.74	0-9	0-13	1.63
7501-20,000	\$2.216	16-75	\$1.31	10-15	14-21	2.44
20,000	\$2.495	76+	\$2.29	15+	22+	3.66
CARPENTERIA		STINSON BEACH		MARIN MUNICIPAL WATER DISTRICT		
Blocks		Blocks	(per ccf)	Winter	Summer	
0-7	2.51	1-1200	\$1.56	0 to 21	0 to 28	2.52
7 to 15	3.11	1201-2000	\$3.75	22 to 48	20 to 63	5.03
15+	3.51	2001-3200	\$6.02	49 to 80	64 to 105	10.06
		3201-4000	\$8.26	81+	106+	15.09
		4001-6000	\$12.41			
		6001-8000	\$15.51			

SKYLINE WATER DIST		MAMMOTH COMM'TY		HI-DESERT WATER DISTRICT	
Blocks	(per ccf)	Blocks	(per 1,000 gal.)	Blocks	(per ccf)
0-6	5.8	0-4,000 gal	\$1.05	0-4	\$2.80
7 to 16	9	4,001-8,000	\$1.35	10-May	\$4.35
17-35	11.5	8,001-12,000	\$2.60	28-Nov	\$5.25
36-70	13.9	12,001-16,000	\$2.60	29-53	\$6.80
71-200	14.1	16,001-20000 ¹⁰	\$5.50	54+	\$7.60

The issue to be decided by the Commission is not whether inclining rates should be put into effect, but how those inclining blocks should be designed. When compared to conservation rates placed in effect in other localities, the rate design proposed by the Settling Parties must be deemed very conservative. If the parties intend to use the period between now and the next rate case as a trial period, truly experimental rate designs should be put to the test. CalWater is in a perfect position, with 15 metered water districts located in different parts of the state, to try out various designs, rather than implementing a single design in all of its districts.

B. Alternatives to Settlement Rates

The rates proposed in the CalWater-DRA-TURN Settlement proposal provide some incentive to conserve, but not much. Worksheets and graphs attached to the Settlement compare monthly bills using a single rate for usage,

¹⁰ Two more blocks of 4,000 gallons are priced at \$5.50, then two blocks of 1,000 gal each are priced at \$7.55 and everything over 30,000 gals is also priced at \$7.55.

and monthly bills using a tiered rate for usage. As shown therein, the proposed rates do not create a significant enough change in the average monthly bill to send a strong price signal of need to conserve.

The Settlement displays, for each district, typical bill comparisons for small, average and large users of water. The display for Stockton indicates bills will be reduced for all but the large users. Using the consumption figures provided in these schedules, average monthly bills were calculated at each usage level for which the number of customers was provided. It appears from this calculation that in the Stockton district, the average monthly bill of most customers will go down under the proposed tiered rates:

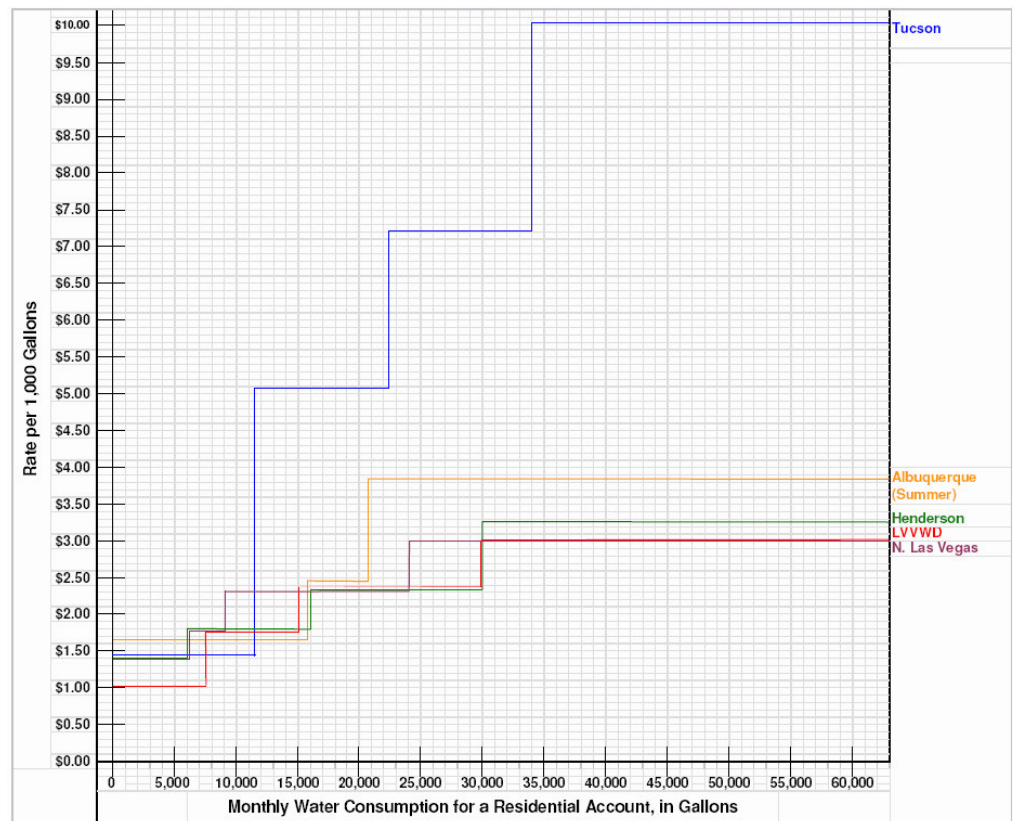
ccf/mo	mo ave. cons	ave mo.bill Single rate	Ave mo bill Tiers Apr.23	Differ ence	Ave mo. Bill Tiers June 21	Differ ence
0-5	2.26	\$2.77	\$ 2.60	-6%	\$ 2.65	-4%
6 to 9	6.36	\$7.80	\$ 7.34	-6%	\$ 7.47	-4%
10	8.66	\$10.64	\$10.00	-6%	\$11.28	6%
11 to 16	12.00	\$14.74	\$14.15	-4%	\$14.40	-2%
17-20	16.71	\$20.52	\$19.39	-6%	\$20.41	-1%
21-25	20.57	\$25.26	\$25.01	-1%	\$25.45	1%
26-37	26.47	\$32.51	\$33.71	4%	\$34.30	6%
38+	45.41	\$55.77	\$61.62	10%	\$62.69	12%

Reducing bills sent to customers who use less than 25 ccf/month is not likely to foster conservation in the Stockton area.

One problem with the proposed rates is that the increase in billed amounts between the first and second rate tiers is so low as to be hardly noticeable and thus, fails to send a conservation message to customers when they begin using more than average amounts of water. According to the parties' motion, "Tier 2 is

priced to be approximately 10% higher than Tier 1.” (Motion at 5). No real price signal is sent to a consumer by such a minimal increase.

The following graph is taken from an analysis of water rates in the Southwest:¹¹



The most extreme increase in tiers is Tucson, where Tier 2 is 250 percent of the Tier 1 rate, but Albuquerque, Henderson and Las Vegas also show significant increases, *i.e.*, between 75 percent (Las Vegas), 50 percent (Albuquerque) and 33 percent (Henderson). Large increases in bills send a strong message – it’s time to begin conserving water.

¹¹ Western Resource Advocates, *Water in the Urban Southwest* (2006) at 40.
<http://www.westernresourceadvocates.org/media/pdf/FINAL%203%20City.pdf>

Another problem with the proposed rates is that the first tier encompasses water use of 10 ccf/month, the equivalent of 7480 gallons per month. According to the Settling Parties, this first-tier break “is set using a proxy of indoor water use based on seasonal indicators.” In fact, it is enough water to more than satisfy the current, indoor uses of an average family of four, which has not undertaken conservation measures.¹² Thus, the rates provide no incentive for the average family of four to conserve water. Those who use less than the average family of four get no benefit from their lower use, and those who use more water than the average, will pay only 10 percent more for their excess water use.

The following chart suggests an alternative rate structure. It was developed using the number of customers and average consumption figures shown in the Table “Stockton Residential Consumption 2005, Key rate input assumptions” behind Tab 9 of the Settlement. The rate design produces nearly the same revenue, and not only benefits customers who conserve, but also provides a more dramatic price signal to customers as their usage increases.

mo ave. cons	Tier 1 (0.80)	Tier 2 (1.64)	Tier 3 (\$2.40)	mo. Bill tiered rate	mo. Bill single rate	Inc/Dec.	Annual Rev. Tiered rate	Annual Rev Single rate	
2.26	\$1.80			\$1.80	\$2.77	-35%	\$106,871.20	\$164,060.65	-\$0.35
6.36	\$5.08			\$5.08	\$7.80	-35%	\$433,721.60	\$665,816.87	-35%
8.66	\$6.93			\$6.93	\$10.64	-35%	\$174,846.40	\$268,411.08	-35%
12.00	\$7.20	\$4.93		\$12.13	\$14.74	-18%	\$1,829,711.00	\$2,224,308.93	-18%
16.71	\$7.20	\$12.57		\$19.77	\$20.52	-4%	\$1,425,579.85	\$1,479,918.22	-4%
20.57	\$7.20	\$18.04	\$1.37	\$26.61	\$25.26	5%	\$1,416,942.24	\$1,345,306.18	5%
26.47	\$7.20	\$18.04	\$15.53	\$40.77	\$32.51	25%	\$1,903,788.48	\$1,517,981.95	25%
45.41	\$7.20	\$18.04	\$60.99	\$86.23	\$55.77	55%	\$1,683,596.16	\$1,088,896.09	55%
							\$8,975,056.93	\$8,754,699.98	

¹² Waste Not Want Not at 39; *see also*, Utah Dept. of Natural Resources, *Identifying Residential Water Use* at 23 (<http://www.water.utah.gov/m&i/PDF/Residential%20Final1.pdf>);

CFC prepared this chart as an illustration, and not as a recommendation. Usage data supplied with the Settlement did not provide the number of customers using water at each level of consumption, but was instead pre-grouped. Thus, it was possible to calculate average customer bills only within the groups created in settlement papers. The parties, presumably, have usage data which could be used to come up with re-designed conservation rates.

The chart set forth above simply illustrates that revenue neutral rates can be designed to reward customers who are already conserving and send the appropriate price signals to customers who are not.

An advantage of establishing greater price differences between blocks is that the bills of low-income customers who are less likely to use water for irrigation, landscaping and other outdoor uses, will be charged at the first tier and at a lower rate. Thus the amount of subsidy to be provided them by other customers is reduced.

An alternative to inclining block rates is to allow each household an allotment of water for a fixed charge. For example, in Tucson, water rates were set to allow a single family residence to use 300 cubic feet (3 CCf or 2,244 gallons) of water for a basic charge of \$5.00.¹³ A commodity charge of \$1.55/ccf (\$2.07/1,000 gallons or \$675/af) was applied to usage in excess of this amount during the winter months. In the summer months (May to October), a surcharge of \$0.95/ccf is added to the basic charge for all water used in excess of the

¹³ Sustainable Use of Water in the Lower Colorado River Basin (Morrison et al. 1996) at 53. http://www.pacinst.org/reports/sustainable_co_river/index.htm

average volume of water used during the winter, and an additional surcharge of \$0.25/ccf is added if water use exceeds 150% of average winter use. Thus a customer could pay as much as \$2.75/ccf for water during summer months.

Irvine Ranch Water District has implemented a similar approach, determining the amount of water needed to water an average sized residential property – separate or attached – and adding an allowance of 75 gallons of water per person in the home, and multiplying the sum by the number of days in the billing period.¹⁴ CFC does not suggest that the judgments made about how much water should be included in the allocation, or the price to be paid for basic usage and amounts in excess of the allocation are appropriate, but simply offers this as an alternative conservation rate design.

The advantage of this type of rate structure is that it can be adapted to take into account the needs of families with more than four members. An allotment of water can be established for their basic needs (e.g., family of eight gets 600 cubic feet of water at the basic rate, instead of the 300 allotted for a smaller family), and the incentive to conserve is provided by the commodity rate for all other water use. Historical usage data is not, however, a good source for establishing the basic allotment, since it does not reflect the effects of conservation efforts. Rather studies, like that performed by the Utah Department of Water Resources, should be used to set a 'base line' for this rate design.¹⁵

¹⁴ http://www.irwd.com/AboutIRWD/budget_rates/ratescharges.pdf

C. Non-Residential Rates

“Cal Water is not proposing IQR for its non residential customers. Cal Water intends to address IQR for non residential customers in future GRCs.” (Morse Testimony at 46:9). Settlement rates provide no incentive for conservation among Cal Water’s business and industrial customers. In Bakersfield, for example, rates proposed for residential customers would increase their bills from 15 to 29 percent; by contrast rate increases for business and industrial customers amount to 8.15 percent. It appears that residential customers, under the Settlement, will absorb most of the increase in revenues requested by Cal Water in Bakersfield.

Conservation rates should be designed for Cal Water’s non-residential customers. “California’s commercial, institutional, and industrial sectors use approximately 2.5 million acre-feet of water annually, or about one-third of all the water used in California’s urban areas. Previous studies of specific regions and industries have shown that the potential for water conservation in this sector is high.”¹⁵ In its discussion of conservation measures which have been found cost-effective for this group of customers, the Pacific Institute employees the following definitions of commercial, institutional and industrial (“CII”) customers:

Commercial: Private facilities providing or distributing a product or service, such as hotels, restaurants, or office buildings. This description excludes multi-family residences and agricultural uses.

Institutional: Public facilities dedicated to public service including schools, courthouses, government buildings, and hospitals.

¹⁵ Utah Dept. of Natural Resources, *Identifying Residential Water Use* (<http://www.water.utah.gov/m&i/PDF/Residential%20Final1.pdf>);

¹⁶ “Waste Not, Want Not” at 77

Industrial: Facilities that mostly manufacture or process materials as defined by the Standard Industrial Classification (SIC) code numbers 2000 through 3999.¹

They found that there were six uses of water which were common to all industries, only one of which varied much between industries:

water use in all industries could be classified into six broad end uses: sanitation (restroom), cooling, landscaping, process, kitchen¹⁷, and laundry. With the exception of process water use, the end uses (i.e., toilet flushing or dishwashing) are very similar among industries. ... We refer to the five end uses unrelated to an institution's processes as "common end uses."

The mix of end uses and quantity of water they use varies widely by industry type. Industrial facilities tend to use water mostly for processes, although they do use (relatively) small amounts of water for common end uses. Commercial facilities tend to use water almost exclusively for common end uses. ...

Our estimates indicate that landscaping uses more water than any other end use in the CII sectors. Other significant end uses include restrooms¹⁸, cooling, and process, which, combined, comprise close to fifty percent of total water use. The smallest end uses, in terms of total use, are kitchens, laundries, and other.¹⁹

The Pacific Institute Study found that significant savings could be achieved by addressing these common uses of water.

We estimate that in 2000, the commercial, institutional, and industrial sectors used around 2.5 MAF and that nearly a million acre-feet of this water can be saved through existing cost-effective strategies and technologies. Much of this savings comes from improving efficiency in outdoor watering, bathroom, and kitchen use – thus, the same technologies that have proven so useful in the home can also cheaply save water in the CII sector.²⁰

¹⁷ Approximately 50% of kitchen use is dishwashing and cleaning pots and pans. *Id.* at 82.

¹⁸ Restrooms are estimated to account for 55 percent of total water use by commercial establishments. *Id.* at 81.

¹⁹ *Id.* at 80.

Further, potential savings in industrial process use may be identified through a detailed site audit followed by an economic analysis to identify what technologies are cost-effective for each facility.²¹

Properly designed conservation rates create incentives for improving water efficiency and conservation. There is no reason to delay the implementation of conservation rates for commercial customers. Individual audits of industrial customers should be initiated and baseline water use developed for these customers. Rates can then be designed to encourage these customers to discourage excessive use of water.

CONCLUSION

The Consumer Federation of California appreciates this opportunity to address issues of significant importance to the welfare of California. The Commission has a real opportunity to address the need for conservation of available water supplies in California and with the cooperation of all interested parties, rates can be designed to provide incentives for customers to install measures which will reduce wasteful water use.

Dated: June 27, 2007

Respectfully submitted,

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²⁰ *Id.* at 113.

²¹ *Id.* at 93.

**BEFORE THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF CALIFORNIA**

Order Instituting Investigation to Consider Policies to Achieve the Commission's Conservation Objectives for Class A Water Utilities.	Investigation 07-01-022 (Filed January 11, 2007)
In the Matter of the Application of Golden State Water Company (U 133 E) for Authority to Implement Changes in Ratesetting Mechanisms and Reallocation of Rates.	Application 06-09-006 (Filed September 6, 2006)
Application of California Water Service Company (U 60 W), a California Corporation, requesting an order from the California Public Utilities Commission Authorizing Applicant to Establish a Water Revenue Balancing Account, a Conservation Memorandum Account, and Implement Increasing Block Rates	Application 06-10-026 (Filed October 23, 2006)
Application of Park Water Company (U 314 W) for Authority to Implement a Water Revenue Adjustment Mechanism, Increasing Block Rate Design and a Conservation Memorandum Account.	Application 06-11-009 (Filed November 20, 2006)
Application of Suburban Water Systems (U 339 W) for Authorization to Implement a Low Income Assistance Program, an Increasing Block Rate Design, and a Water Revenue Adjustment Mechanism.	Application 06-11-010 (Filed November 22, 2006)
Application of San Jose Water Company (U 168 W) for an Order Approving its Proposal to Implement the Objectives of the Water Action Plan	Application 07-03-019 (Filed March 19, 2007)

CERTIFICATE OF SERVICE

I hereby certify that on June 29, 2007, I served by e-mail all parties on the service lists for I.07-01-022, A.06-09-006 A.06-10-026, A.06-11-009, A.06-11-010, & A.07-03-019 for which an email address was known, true copies of the original of the following document which is attached hereto:

THE CONSUMER FEDERATION OF CALIFORNIA'S COMMENTS ON SETTLEMENT AGREEMENT BETWEEN DRA, TURN AND CAL WATER SERVICE COMPANY

The names and e-mail addresses of parties served are shown on an attachment. The aforementioned document was served on Michael Whitehead, San Gabriel Valley Water Company, PO BOX 6010, El Monte, CA 91734, by causing the Notice, enclosed in an envelope addressed to him and with postage prepaid, to be deposited in the U.S. Mail.

Dated: June 29, 2007

Respectfully submitted,

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